

**COMPLETE LISTING OF ALL OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claims 1-12 (previously canceled)

Claim 13 (currently amended): An assembled substrate, comprising

a substrate having a first side and a second side, and a first electrical contact area on said first side and a second electrical contact area on said second side;

an electrical component having a plurality of leads electrically connected to said first electrical contact area of said substrate; and

a capacitor plate electrically connected to said second electrical contact area on said second side of said substrate substantially opposite said first electrical contact area of said substrate;

wherein said second electrical contact area on said second side of said substrate is used for In-Circuit Testing;

wherein the capacitor plate has a selected capacitance value that provides decoupling capacitance to the leads, and wherein the capacitor plate comprises a ground plane disposed between a first pair of dielectric layers and a power plane disposed between a second pair of dielectric layers, and wherein a first contact pad is connected to the ground plane and a second contact pad is connected to the power plane ~~selected capacitance value is based on an electrical model of the capacitor plate and on a~~

~~verification of the capacitance value after connecting the capacitor plate to the substrate.~~

Claim 14 (Original): The assembled substrate of claim 13, wherein said assembled substrate further comprises:

    a first interposer between said component and said first electrical contact area on said first side of said substrate; and

    a second interposer between said capacitor plate and said second electrical contact area on said second side of said substrate.

Claim 15 (previously presented): The assembled substrate of claim 14, wherein said first interposer and said second interposer are chosen from a group consisting of: a socket, or a conductive elastomeric material.

Claim 16 (previously presented): The assembled substrate of claim 13, wherein said substrate is chosen from a group consisting of: a PCB, an MCM, and a flexible substrate.

Claim 17 (previously presented): The assembled substrate of claim 13, wherein said component is chosen from a group consisting of: an LGA component, or a BGA component.

Claim 18 (Original): The assembled substrate of claim 13, wherein said capacitor plate has a plurality of layers of dielectric material separating a plurality of layers of conductive material.

Claim 19 (previously presented): The assembled substrate of claim 13, wherein said capacitor plate comprises:

a plurality of conductive power planes; and  
a plurality of conductive ground planes, wherein said  
plurality of conductive power planes and said plurality of  
conductive ground planes are separated by one or more  
dielectric layers including a dielectric layer chosen from  
the materials comprising at least one of: FR4, a resin, an  
elastomeric material, or a ceramic.

Claim 20 (original): The assembled substrate of claim 13,  
wherein said capacitor plate is attached by solder to said  
second electrical contact area on said second side of said  
substrate.

Claims 21-29 (previously canceled)

Claim 30 (previously withdrawn): The assembled substrate  
of claim 13, wherein the capacitor plate is fabricated by a  
method comprising: estimating a capacitance for the  
capacitor plate; creating an electrical model of the  
capacitor plate as assembled on the substrate; determining  
if the electrical model predicts that the capacitor plate  
provides the required decoupling capacitance for contact  
pads under the electrical component; estimating a new  
capacitance for the capacitor plate, if the capacitor plate  
does not provide the required decoupling capacitance;  
building a prototype of the capacitor plate; assembling the  
capacitor plate on the substrate; and testing if the  
capacitor plate provides a correct capacitance after  
assembling the capacitor plate on the substrate.

Claim 31 (previously withdrawn): The assembled substrate  
of claim 13, wherein the capacitor plate is fabricated by a

method comprising: estimating an initial required capacitance for a plurality of contacts on the capacitor plate; modeling the capacitor plate as assembled on the substrate; estimating a more precise required capacitance for a plurality of contacts on the capacitor plate after modeling the capacitor plate; and fabricating the capacitor plate according to the more precise required capacitance for the plurality of contacts.

Claim 32 (previously withdrawn): The assembled substrate of claim 13, further comprising: a clamp for clamping the capacitor plate and the component to the substrate.

Claim 33 (previously presented): The assembled substrate of claim 13, wherein the electrical model is created by a computer aided design software.